Washington State Department of Transportation

The Lake Washington Urban Partnership

Application for Urban Partnership Agreement as Part of Congestion Initiative

Submitted to:

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Introduction

The Washington State Department of Transportation (WSDOT), Puget Sound Regional Council, and King County are pleased to join with other participating local governments and major employers to submit applications for the Urban Partnership Agreement and related discretionary grant programs. The Seattle-King County metropolitan region provides the real world traffic challenges, along with the social, economic and political support, needed for a successful demonstration of how tolling – supported by aggressive transit and demand management programs, as well as the application of technology – can contribute to the improvement and efficiency of our transportation systems.

The Lake Washington Urban Partnership (Partnership) is tied to the urgent replacement of the SR 520 Lake Washington floating bridge. The SR 520 bridge and the parallel I-90 bridge are critical to this region's economy and quality of life. WSDOT and its coalition of regional partners propose improving traffic flow for motorists by rigorously pursuing congestion reduction strategies across Lake Washington including the 4Ts: tolling (congestion pricing), transit, telecommuting/TDM, and technology.

Congestion in the Seattle-King County metropolitan region is bad and getting worse. The geography of the area has limited the transportation system to three major north south routes – I-5 and SR 99 through Seattle and I-405 through the eastern portion of the metro area – and two major east-west routes – SR 520 and I-90. SR 520 and I-90 together form the Lake Washington corridor, shown in the Figure 1. This corridor connects some of the country's most vibrant technology and manufacturing centers with some of the most desirable residential areas in North America. The City of Seattle is located at the western terminus of both bridges and experiences severe urban congestion. This region demands and respects the balance of economics, environment and quality of life.

Figure 1

The central Puget Sound region has its major population and employment centers separated by Lake Washington. SR 520 and I-90 are the sole east-west connections across the lake and are heavily traveled by commuters in both directions.

SR 520 between I-5 and I-405 is one of the most congested corridors in the Central Puget Sound region. The intense congestion reduces the corridor's effective throughput capacity by 40% for several hours each day. The SR 520 bridge is vulnerable to earthquakes and windstorms and must be replaced before 2020. However, with many other competing needs in the region, there is currently insufficient revenue to fund the bridge replacement and corridor improvements.

Detailed funding plans for the SR 520 bridge replacement are still being developed. The State Treasurer recently concluded that without additional funds, the state will need to toll both

SR 520 and I-90, with tolling likely to be necessary prior to completion of the new bridge. There is already broad discussion in the region of how tolling SR 520 may impact other critical routes such as I-90, I-5, I-405, SR 99 and SR 522. Effects on other regional facilities may best be managed by expanding toll operations and system demand management to other corridors or congested urban centers. The Partnership would lay the foundation for important future opportunities and would advance existing regional policies such as the Puget Sound Regional Council's 2001 Metropolitan Transportation Plan, the State Transportation Commission's September 2006 Comprehensive Toll Study, and the Regional Transportation Commission's 2006 report to the Governor and Legislature.

Washington State has a long history and solid reputation for successfully implementing innovative ideas to reduce congestion and better operate the transportation system. Washington has been at the forefront in ramp metering, HOV lane development, use of technology, real time travel information for the driving public, and developing electronic toll collection systems to work across a region.

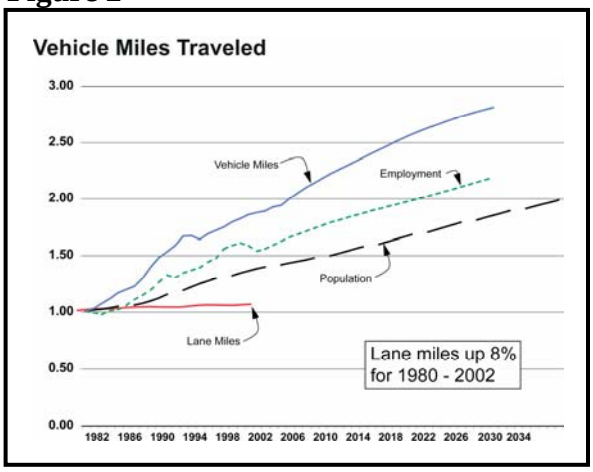
These efforts have been successful in part because of the working relationships that exist between WSDOT and other transportation agencies in the Seattle-King County area. Through cooperative efforts with the Puget Sound Regional Council, King County Metro and local cities, the region has built a strong foundation in the use of technology, telecommuting/TDM, transit and tolling to glean capacity out of the transportation system. WSDOT and its partners will leverage previous successes to reduce congestion across the lake and to improve travel times and travel options throughout the region.

The partners have already been in discussion with private businesses who are interested in showcasing the potential benefits of their technologies in support of congestion and demand management. These potential private sector partners know that participation in this program will not automatically constitute selection or endorsement of their products for subsequent application.

i. Why is traffic congestion in this metropolitan area severe?

A booming economy, ever increasing travel demand, limited transportation supply, eroding roadway efficiency and the lack of market mechanisms to balance travel demand and supply have each contributed to the severe congestion across the lake and in the entire Central Puget Sound region. The area's economy and population have grown considerably over the past 25 years, increasing the demands on the transportation system. Between 1980 and 2003, population grew 45 percent

Figure 2



and employment increased by 55 percent, causing vehicle miles traveled to increase by 91 percent. In this same period, investment in the highway system lagged behind the growth with the addition of only 8 percent of new lane miles. Figure 2 shows the increase in vehicle miles traveled in the past and projected increases over the next thirty years. (Source: WSDOT Report to State Senate Transportation Committee, 2006).

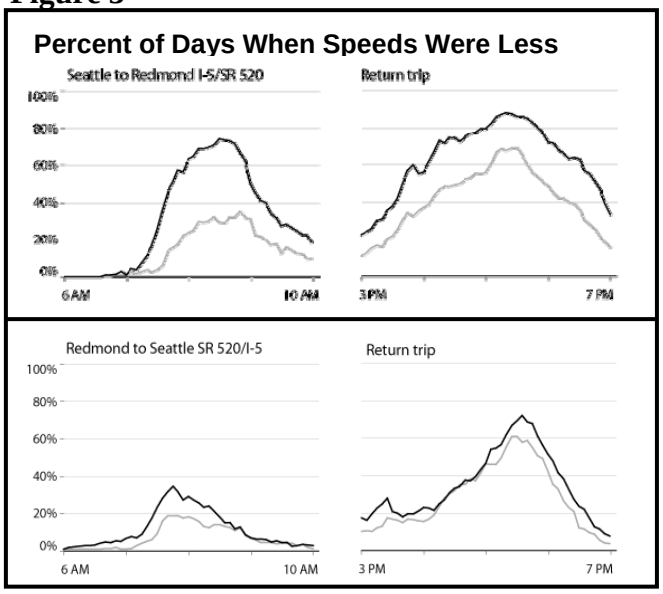
Growth in the region will continue. Over the next 20 years, the region is expected to add another one million people and 700,000 jobs.

Though the region has grown, the SR 520 corridor capacity has remained the same since constructed in the early 1960s. Now, the corridor and the bridges carry 110,000 vehicles per day, almost double the traffic for which they were designed. Traffic is almost evenly split, with a two-way traffic flow that serves both employment sites in urban Seattle and the suburban eastside of Lake Washington. Congestion is actually worse in the traditional "reverse flow" direction.

The imbalance between demand and capacity has significantly eroded carrying capacity. One of the most striking challenges is the highway capacity wasted by traffic congestion during peak commute times. Traffic bunching and slowdowns caused by too many vehicles trying to use the bridge at the same time rob the corridor of nearly 40% of its ability to pass vehicles through. This wastes energy and generates pollution just as it frustrates citizens with delay and inconvenience.

All these factors have contributed to the severe congestion in the region and the Lake Washington corridor. For example, travel from Seattle to Redmond, for the same 16 minute trip when the SR 520 bridges were constructed four decades ago, drivers today should allow 40 minutes in the morning and 61 minutes in the evening to assure a 95% chance of arriving on time.

Figure 3



Congestion in the SR 520 corridor has grown significantly worse in the recent years. Figure 3 compares the percent of days in 2003 and 2005 when speeds on SR 520 were less than 35 miles per hour during peak travel times.

ii. What is the local public's acknowledgement of this problem?

In surveys of the most important issues facing the region, transportation has consistently been the issue of highest concern to the public. Puget Sound residents were asked to

name the most important problem facing the region. In 2005, 2006 and 2007 transportation issues were at the top of the list:

- Traffic/roads was the number one issue in 2005, followed by the need for more mass transit options
- The top three issues in February of 2006 were lack of transit, traffic congestion and lack of new roads
- The top two issues in August of 2006 were transportation and traffic[1]
- The top two issues in an April 2007 public opinion research survey funded by the Sound Transit were transportation and traffic.

The public is ready to try new and innovative solutions to address traffic congestion. The Washington State Transportation Commission's 2006 study of public attitudes toward transportation issues found that of the more than one thousand Puget Sound residents surveyed, 74% supported tolling the SR 520 bridge to pay for its replacement and improvement and 60% supported tolling both SR 520 and I-90 to fund a variety of improvements, including transit. It also found that the public preferred tolling to increasing the gas tax, a major revenue source today for transportation improvements.[2]

Local media frequently reported on future tolling during 2006. The Seattle Post-Intelligencer said central Puget Sound residents "need to look to alternatives to (and in addition to) building more lane miles" and that "using tolls to manage demand" can work.[3] Seattle Times editors agreed that "tolls are the coming thing" and said the public can be persuaded to accept tolls if "they are provided an immediate benefit – which [tolls]…can, if done right."[4]

In April 2007, local media supported the State Treasurer's call for tolling both SR 520 and I-90. The editorial board of the Seattle Post-Intelligencer suggested that "if we cannot afford more pavement, the alternative is a regional strategy that promotes smarter and more effective ways to move people and goods."[5]

WSDOT and its partners see the proposed Partnership as a great opportunity to demonstrate to the public how congestion pricing can be used to improve their commutes. The traveling public is aware of tolling as a potential development in the region. Tolling awareness has been raised by the new Tacoma Narrows Bridge and SR 167 HOT Lane Pilot Project. King County public awareness research completed in March 2007 found that 73% of King County residents are aware of electronic toll collection.[6]

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[1] All surveys available online at http://www.wsdot.wa.gov/accountability/PublicOpinion/default.cfm.
[2] "A Two-Phase Study of Attitudes of Washington State Voters Toward Transportation Issues" available online at http://www.wstc.wa.gov/Tolling/Analysis_AttitWaStateVoters.pdf.
[3] "Highway Capacity: Tolling for thee," Opinion, *Seattle Post-Intelligencer*, 2 July 2006.
[4] "Making the case for future road tolls," Editorials & Opinions, *Seattle Times*, 23 April 2006.
[5] "Regional Roads: Get beyond 'more,'" Opinion, *Seattle Post-Intelligencer*, 9 April 2007.
[6] "Gilmore Research Opinion Poll", March 2007.

Despite public awareness of tolling, WSDOT and its partners recognize the difference between awareness and acceptance. Challenges to implementation do exist. WSDOT can use its experiences with the Tacoma Narrows and HOT lanes projects to increase acceptance, but more public outreach and education is needed. Previous market research demonstrates that people think tolling means paying twice for a road. Many don't yet understand the congestion relief benefits of open road, variable tolling. Some people think they will be paying additional money to sit in the same traffic they do today. Others think there is enough money to make needed transportation improvements without tolling.

WSDOT and its partners understand that when it comes to proving that tolling will improve travel times – "seeing is believing." When the benefits for travelers are demonstrated the public should increasingly support congestion pricing efforts.

iii. How is the political leadership of this metropolitan area ready to solve the problem?

Our region's political leaders are supportive of efforts to improve the transportation systems and make them operate more effectively. Local jurisdictions have recently asked the public to raise transportation taxes to fund transportation improvements. In 2006, voters approved both the City of Seattle's "Bridging the Gap" initiative, which is raising $540 million for city road and bridge projects, and King County's Metro "Transit Now" package to increase transit services by 15 to 20 percent. Another measure to improve roads and transit services and round out transportation investments for major projects in the region will likely be presented to Puget Sound voters in the fall of 2007.

Washington State's political leaders have also responded to public support for transportation improvements. The Legislature raised the gas tax by five cents in 2003 and by nine and a half cents per gallon in 2005 to support transportation improvements. The 2005 increase was affirmed by a public vote, demonstrating both political and public support for solving transportation problems.

Regional leaders are beginning to recognize congestion pricing may be an important element to reduce congestion. For example, at the April 2007 PSRC's Transportation Policy Board meeting, regional transportation leaders voted unanimously in support of submitting this application. King County's leadership supports "user pays" methods to finance transportation improvements because "these fees encourage the efficient consumption of transportation investments and collect revenues primarily from those who use and benefit from these services."[7] Other programs, such as Seattle's Climate Initiative further underscore the importance of considering congestion pricing as a viable congestion management for the region. In addition, the State Transportation Commission completed a comprehensive tolling study the fall of 2006 to set the direction for tolling policy and practice in Washington State. The

[7] King County

planned opening of SR 167 HOT lane pilot project in 2008 is a good testimony of regional leaders' willingness to use congestion pricing to improve highway efficiency.

Recent state legislation requires the Governor's office to work with the Washington State Department of Transportation, Sound Transit, King County and the University of Washington to plan for coordinated, high capacity transportation in the SR 520 corridor. It also requires that a financing plan be submitted to the Legislature by January 1, 2008 for replacing the SR 520 bridge. The finance plan "must include state funding, federal funding… regional contributions, and revenue from tolling."

The legislature also directed that: "The (transportation) commission shall conduct a planning grade tolling study…" And, in April of this year, the legislature passed legislation that "…intends that tolls be charged to offset or partially offset the costs for the following projects, and that a managed lane concept be applied in their design and implementation: State Route 520 bridge replacement and HOV project, and widening of Interstate 405."

iv. How can we address congestion by incorporating the Four Ts?

WSDOT and its coalition partners have effective regional transit, telecommuting programs and technologies in place, complementing WSDOT's emerging tolling projects. Improvements to already successful transit, telecommuting and ITS programs will not only assure the success of implementation of congestion pricing in the SR 520 and possibly I-90 corridors, but also prepare for future improvements to commutes throughout the region.

Tolling

The Washington State Legislature recently established its policy that federal, state and regional sources, including toll revenues, will be needed to help finance construction and operation of the new SR 520 bridge. The Partnership would use technology that is currently used elsewhere in the country and around the world to develop solutions that would benefit traffic flow in our region. "Open-road" electronic tolling systems eliminate the need for toll booths, providing commuters with a fast trip, convenient billing, and an easy and understandable transaction. Current technology also allows tolls to vary by time of day – giving a break to travelers who can use the bridge during less crowded times and using a higher price during congested times to manage demand and smooth traffic flow, allowing more traffic to move through the corridor.

Hard work is needed. The public must learn more about tolling and contribute its own views to the design of a tolling implementation program that it perceives as fair and effective. Financial analyses must be completed to determine how much revenue can be expected through tolling, and to determine acceptable toll levels. Operational

analyses must be prepared, and alternatives put forward to address traffic diversion from SR 520 to other routes to ensure that the system keeps operating effectively.

Transit

The Lake Washington Corridor presents an excellent opportunity to demonstrate the synergies between transit service enhancements and congestion pricing. The corridor has the congestion, transit demand, and concentrated employment centers to demonstrate the significant benefits from tolling in combination with transit enhancements. Already more than 10,000 people ride transit or vanpool across SR 520 during the peak periods every weekday.[8] The Partnership would serve to increase transit ridership moving more people while improving travel time reliability.

Current efforts in these corridors include King County Metro route improvements funded by the 2006 "Transit Now" tax, Sound Transit express service, real time bus arrival information, transit oriented development opportunities, and the ORCA smartcard program. To further enhance transit services in the corridor, our Urban Partnership will:

- Provide additional transit service hours in the corridor
- Implement bus rapid transit (BRT) facilities, and integrate with King County Metro RapidRide Corridor(s)
- Expand existing park and ride lot(s)
- Purchase additional transit coaches and future replacement coaches

Telecommuting and TDM

The foundations of telecommuting and TDM are already in place in the Seattle-King County metropolitan area. The region has mature relationships between public agencies and private employers to provide services and incentives to reduce solo driving. As a result, Washington State and the Central Puget Sound region, have far fewer solo drivers than the national average, ranging between 68% for Commute Trip Reduction sites in Washington and 76% of solo drivers nationally.

King County recently received a $1.9 million grant to initiate a statewide "Pay-As-You-Drive" insurance program that aims to reduce single occupancy vehicles trips and total vehicle miles traveled. WSDOT and its partners will leverage this grant funding to make Lake Washington commuters a focus group for selecting the program participants.

We will exploit these relationships to take demand management to the next level. Local agencies' strong relationships with large employers will help connect workers with the technology and travel information needed to telecommute, use alternative modes, plan efficient trips and improve travel times.

[8] PSRC

Technology

WSDOT and its partners would incorporate new technologies into our work programs and build a framework that can adapt to future technology advances. Some of the most important areas for technology applications will be:

- Electronic toll collection systems that provide customer convenience and efficient and accurate billing.
- Roadway management technology to improve safety, reliability and traffic flow.
- Real time traveler information systems for users of every transportation mode. Timely information allows customers to make informed and rational travel decisions regarding mode, time and route choice that maximize their trip efficiency and improve the efficiency of the whole transportation system.

1. Participating Parties

An application should provide a preliminary, non-binding list of the parties likely to participate in the Urban Partnership

The following is a preliminary list of the parties likely to participate in the Lake Washington Urban Partnership. The list will be adjusted as the Partnership and its projects move forward and additional agencies and jurisdictions are included. A preliminary organizational chart is attached in Appendix A.

- Washington State Department of Transportation
- Puget Sound Regional Council
- King County
- King County cities
- Federal Highway Administration
- Federal Transit Administration

2. Comprehensive Congestion Reduction Strategy

An application should generally describe the metropolitan area's proposed comprehensive congestion reduction strategy, and explain how different parts of that strategy, if any, would interact to reduce congestion.

The Central Puget Sound region has a four part comprehensive reduction strategy as reflected in the region's transportation plans and congestion management process:

a. **Transportation–Efficient Land Use**: Land use is a basic factor in travel, and is the foundation of the region's congestion relief strategy. The region has a comprehensive growth strategy which lays out preferred growth patterns and regional policies to

achieve them. The regional growth strategy includes limits on rural sprawl, support for infill into 25 designated urban growth centers, better jobs-housing balance, and other land use patterns that are supportive of an efficient multimodal transportation system including transit-oriented developments.

b. **Shifting Travel Demand**: The region has an aggressive demand management program to encourage shifting the time or mode of travel. A cornerstone is the state's commute trip reduction law which encourages and supports employers in reducing drive-alone commutes. The region has extensive transit service, the largest vanpool fleet in the nation, a large system of HOV lanes, and has supported innovative practices such as car-sharing, parking management, and pay-as-you-drive insurance.

c. **Improving System Efficiency**: Much of the throughput of major routes is lost at congested times: the region is seeking to reclaim its lost capacity through improved operations. Freeway ramp meters, incident management programs, traffic signal coordination, safety initiatives, traveler information and active management through camera and data monitoring are all employed to increase throughput. The region has a policy supporting the use of congestion pricing to improve system efficiency, and the SR 167 HOT lane pilot project will be completed in 2008 to test these concepts.

d. **System Expansion**: With the high levels of growth experienced in the past and expected in the future, the Central Puget Sound region has an aggressive transit and roadway expansion plan. The region's high capacity transit system has been developing over the past 10 years, with commuter rail and express buses already up and operating, and an initial light rail segment under construction. Plans include a large expansion of the light rail system to connect major regional growth centers, and other transit service expansions. On roadways, the region has a large expansion program underway, funded from state gas tax increases. The program includes replacing major at-risk facilities, completing freeway missing links, and widening major travel corridors across the region. An additional, complementary set of roadway expansions are expected as part of the regional roads and transit ballot.

The parts of the regional congestion reduction strategy outlined above are intended to work together to improve multimodal and freight travel conditions, provide choices, and to provide capacity for the additional one million people and 700,000 jobs expected in the next 20 years. Elements of this comprehensive strategy are reflected in the Lake Washington Urban Partnership proposal, which is built around the upcoming replacement and expansion of the SR 520 floating bridge. Since tolls on the new bridge are a likely part of the financing plan, the bridge replacement provides the region with an unparalleled opportunity to integrate the Urban Partnership "4T's" to improve travel in the corridor.

Specifically, these activities will be added:

- New transit service – including innovative user information technologies – provide an alternative for cross-lake travel

- New technology and pricing to maintain travel speeds, guaranteeing bridge users a more reliable trip
- Increasing telecommuting programs
- Implementing active traffic management with overhead displays and automatic incident detection systems to smooth flow and provide travelers with information needed to make wise choices.

3. Congestion Pricing Measures & Affected Areas

An application should describe the role pricing would play in the congestion reduction strategy. To the extent practical, an application should indicate, in specific terms, how traffic would be affected, what areas or routes would be priced, how congestion prices would be determined, and which vehicle categories would be affected (e.g., single occupant vehicles or all vehicles).

Congestion pricing will be used to improve travel times and provide Lake Washington travelers with real time information for trip planning purposes. WSDOT is investigating a range of tolling plans to identify the best pricing strategy to improve commutes and make peak travel times more reliable. The Partnership and supporting grants will aide the continuation of this analysis, and then design and implement the toll systems. Congestion pricing will initially be implemented on SR 520 and possibly on I-90 between I-405 and I-5. Toll rates will vary according to congestion levels to keep traffic flowing efficiently while also providing needed revenue for the SR 520 bridge replacement.

WSDOT will not propose tolls for transit trips. As part of this work, WSDOT and its partners will determine the benefits and disadvantages of tolling HOV and vanpool trips.

WSDOT and its partners will also consider, and address, the system impacts and operations opportunities that tolling the Lake Washington corridor will have on surrounding roadways to ensure regional traffic is moving as efficient as possible.

4. Transit Services

An application should describe transit services, including BRT and other commuter transit services that are to be provided or supplemented, and the expected impacts of the expanded transit services on congestion. The application should also describe transit fare pricing policies to be adopted with the objective of increasing traveler throughput during peak traffic periods, while avoiding excessive congestion in the transit system.

King County Metro and Sound Transit currently provide over 400 bus trips on the SR 520 corridor during the peak periods of each weekday, for a total of more than 10,000 peak-period rides each weekday. The Partnership would improve on existing transit services to reduce auto trips and provide toll free travel options. Congestion pricing will assure transit and vanpool speed and reliability across the Lake. Improved rider information will make transit services more convenient.

Added transit services can achieve the following goals for the Trans-Lake Washington Corridor:

- Increase transit ridership on SR 520 by a projected 15% to 35%.
- Provide sufficient capacity on transit service to accommodate those wishing to switch to transit when tolls are implemented.

To achieve these goals, the following specific improvements are planned for the Trans-Lake Washington corridor:

- Improve all-day and peak-period frequency of core routes. Higher frequency service throughout the day will provide additional peak-period transit capacity and will encourage off-peak-period use of transit to facilitate travel during non-traditional work hours.
- Provide additional capacity to serve more direct point-to-point commute travel to fully meet peak-period ridership demand.
- Add additional commuter parking (e.g. Brickyard Park and Ride), transit-only roadway facilities and technology components. For example, Metro is currently increasing bicycle carrying capacity of its buses crossing the bridge by 50% to increase non-SOV use.
- Implement new and expanded reverse peak service to better serve dense residential areas on the west side of the lake.
- Improve transfers to and from the core routes of the corridor with improved passenger waiting environments, including real time information signs to inform transit riders and make transfers more convenient.
- Implement Metro's RapidRide BRT program to reduce car dependency and increase the capacity and quality of transit. The Bellevue-Redmond RapidRide route will intersect and parallel the SR 520 corridor and provide alternative mode of travel between Bellevue and Redmond with high frequency transit service seven days per week, approximately 18 hours per day or more.
- Use the RapidRide program to test and implement various technological and operational tools, programs and practices to improve transit service throughout the region (e.g. Pacific Highway South RapidRide BRT).

To further enhance transit services in the State Route 520 corridor, WSDOT and its partners will seek additional funding through state and federal programs, grants and other revenue sources to:

- Increase the use of deadheading buses to provide reverse-commute peak services from Seattle to destinations such as Overlake Transit Center.
- Procure additional coaches to accommodate anticipated ridership growth resulting from the congestion pricing.
- Metro and its partners have a limited ability to operate, maintain and store additional vehicles. If ridership growth exceeds forecasts, Metro and its partners will work with affected communities to improve trip utilization and available capacity through headway and route modifications and other creative ways to provide a greater person throughput.
- Fast-track planned transit investments in the corridor that otherwise would take place later than the implementation date for tolls.
- Seek out opportunities and funding to contract for additional leased commuter parking facilities and to increase the parking capacity of existing park and ride lots. The South Kirkland Park and Ride would be expanded through this program.

5. Telecommuting/Transportation Demand Management

An application should indicate telecommuting, flex-time, and various related employer-employee policies to be adopted, including likely employer participants and the number and location of employees affected. These proposed non-pricing demand management activities need not be limited to telecommuting or flex-time schedules, and they may include activities like parking cash-outs or other suitable incentives that seek to reduce peak-hour, drive-alone travel.

This element will build on the state and region's established and successful telecommuting and demand management programs to enable the rapid implementation of new programs. Washington State has been a trailblazer in employer commute programs since the establishment of the Commute Trip Reduction Law (1991). Program evaluation indicates that CTR programs have reduced morning daily commute trips by 20,000. Implementing a pricing program creates a unique opportunity to expand this program.

We know that successful telecommuting requires knowledge-based jobs, widespread broadband internet access and supportive employers. These foundations are already in place on the Lake Washington Corridor. Knowledge-based jobs at major employers such as the University of Washington and Microsoft, broadband access in 75%-80% of households in these travelsheds, and successful programs already in place at many companies sets the stage for increased telecommuting.

Central Puget Sound is already home to successful telecommuting programs at large companies, including:

- Boeing, where 14 percent of the 64,000 total employees are registered telecommuters

- Fred Hutchinson Cancer Research Center, where 15 to 20 percent of 2,800 Seattle employees telecommute at least once per month
- Hewlett Packard, where 25 percent of 250 Bellevue-based employees work at home at least once a week
- The University of Washington, where 19 percent of more than 60,000 employees and students telecommute at least once every two weeks

WSDOT and its partners will target large employers within the corridor area, local Transportation Management Associations (TMAs), downtown associations and residential neighborhoods. King County's Transit Now program has already identified several large employers and cities on both sides of Lake Washington who are interested in enhancing transit service and reducing employee drive-alone trips. Some of these include:

Children's Hospital

The University of Washington

Hospitals in the First Hill medical district

Microsoft

The cities of Seattle and Bellevue

The table below, based on 2005 CTR data indicates SOV rates of 68% and 66% for commute trips originating on the East and West side of Lake Washington respectively.

CTR Commute Data			
Employees living on the East side of the lake commuting across the lake			
Drove alone	Bus	Rideshare	Other
68%	15%	13%	4%
Employees living on the West side of the lake commuting across the lake			
Drove alone	Bus	Rideshare	Other
66%	14%	15%	4%

Employer-based programs will include a combination of: closely coordinated work schedules/telecommuting promotions, targeted marketing, parking cash-out promotions and employer-based incentives for transit, vanpooling, carpooling as well as walking and biking.[9] For example, the Greater Redmond Transportation Management Association represents 52,435 employees (including Microsoft) and will continue aggressive CTR programs using incentives, innovative services, marketing and education to achieve congestion reduction goals.

Microsoft has a particularly aggressive CTR program and a commitment to a commute pattern where at least 30% of all employees commute in a mode other than SOV during A.M. and P.M. peak hours. Microsoft incentives include a 100% transit subsidy for a comprehensive bus pass, a $65 per month vanpool subsidy, promotion of King County's

[9] The Washington State Commute Trip Reduction Program requires employers to maintain employee trip information.

Rideshareonline.com, a local shuttle service between company headquarters and a nearby transit center, bicycle parking and shower facilities, preferential parking for employees who carpool or vanpool, and a Guaranteed Ride Home by taxi for commuters arriving by non-SOV methods. The company is planning to pursue a campus-wide SOV reduction program, reducing existing SOV rate from 70 to 60% within the next few years.

WSDOT and its partners will use supporting grant funds to make services such as those employed at Microsoft available to an expanding group of commuters. At this time, we estimate achieving an additional commute trip reduction of 5 to 7% in the Lake Washington Corridor.[10]

6. Expedited Project Completion

An application should indicate any major transportation projects or project components that are sought to be expedited through an UPA. The application should also indicate the expected effects on congestion from early completion of these projects.

WSDOT and its partners seek to move the Lake Washington tolling program out of the plan books and onto the road. Implementing congestion pricing on SR 520 and possibly I-90 across Lake Washington is the centerpiece of this Urban Partnership application.

A number of challenging technical, environmental, financial, public education and social equity issues need to be addressed before the proposed congestion pricing can be implemented.

Through the Partnership, WSDOT and its partners seek USDOT to provide a significant portion of the funding needed to implement tolling and purchase additional transit coaches. In addition, the partnering agencies seek USDOT and other federal agencies technical support to address critical issues including, but are not limited to:

- Environmental impacts
- Social equity
- Technology deployment
- Public outreach and education
- Toll revenue projections
- Authority to toll I-90 if necessary and politically feasible
- Performance measurement

[10] This estimate is based upon the following information: 1) Current SOV rate for CTR-affected companies; 2) Annual reductions in VMT* based on current programs; 3) Projected reductions from TDM/Telecommuting programs over the next three years; and 4) Factored growth rate for the area.

WSDOT and its partners seek to implement the proposed program as early as 2009, given strong support from USDOT and other federal agencies on the issues identified above.

Congestion reduction effects of the proposed toll strategy and increased transit services are assessed in the following section of this application.

7. Travelers Affected Daily

An application should indicate the estimated number of daily travelers that will be directly affected by priced facilities and by other measures expected to be adopted by the Urban Partner. This should include the estimated number of persons (vehicles) that will pay congestion charges, as well as the likely number diverted to other travel times, routes, or other transportation services, such as transit. Similarly, if telecommuting is to be adopted, the application should indicate the estimated number of daily employee participants.

Approximately 250,000 to 260,000 vehicles cross Lake Washington each day, of which 100,000 to 110,000 use SR 520. According to a recent toll feasibility study conducted by WSDOT using the regional travel demand forecast model, 50,000 to 70,000 vehicles per day are expected to pay congestion charges if SR 520 is tolled alone, and 140,000 to 200,000 vehicles are expected to pay tolls if both SR 520 and I-90 are tolled.

Route diversion in peak periods is not expected to be significant when tolling is used to improve travel times and increase throughput. Real time data shows that the actual peak period throughput of the SR 520 corridor on a typical weekday is only about 60% the available capacity, due to severe congestion and resulting slower travel speeds. When the price is set right, enough people will move to carpools, vanpools, buses or telecommuting, or change times of travel and the reduction in single-occupancy vehicles will allow everyone to move through more efficiently.

Further, congestion pricing increases transit ridership by making vehicle trips comparatively more expensive and by improving transit speeds and reliability. According to the regional model, diversion to transit services is expected to be between 3-6%. This translates to increase in transit ridership by 15-35% or more over the existing level.

Due to lack of real world data, it is difficult to estimate the impacts of the proposed congestion reduction strategies, particularly congestion pricing, on users' travel patterns. WSDOT and its partners will take this opportunity to operationally quantify the elasticity between travel demand and various toll rates and other congestion reduction measures to validate and improve the analytical tools that will be used for future analyses.

8. Use of Technology

An application should clearly indicate the extent to which a locality plans to operationally test innovative technology in achieving its congestion reduction targets.

The central Puget Sound region is a leader in using technology to improve traffic operations, keep travelers informed, and improve safety. The region is building a technology infrastructure that provides real-time traveler information about travel alternatives and ensures coordinated management of all modes.

The focus of the proposed Partnership is to enable "open-road" electronic toll collection – no toll booths – using in-vehicle transponders (toll tags) and wireless communications to process toll charges. Supplemental cameras will be used to identify vehicles without toll tags for accurate and fair toll processing. Combined with real-time pricing and travel time information, these provide motorists with tools to make better travel decisions.

Overhead signs inform drivers of travel times to major destinations so they can make route decisions.

The electronic toll collection and processing technologies to be deployed in the cross-lake corridors will be compatible with those used at the Tacoma Narrows Bridge (2007) and the SR 167 HOT Lanes Pilot Project (2008). WSDOT will the following modern technologies to implement tolling, reduce traffic congestion and improve traffic flow:

- New VMS for advanced toll price notification on adjacent highways and ramps
- License plate reader and automatic camera at each tolling site to gather data on vehicles that do not have transponders
- Active traffic management with overhead displays
- Remotely controlled on-road signs to display real time traveler information and to set variable speed limits for smoother traffic flow during peak traveling periods
- Updating fiber optic systems with new access points and increased capacity
- Providing wireless node points and WiFi at bus stops for traveler with remote communications to transit coaches

- Upgrading closed circuit television cameras and installing new cameras
- Replacing highway advisory radio systems to with digital systems
- Adding data collectors to automate incident detection
- Continued use of existing ramp meters

The following transit-specific improvements will improve the transit experience and increase transit ridership:

- Improvements to Transit Rider Information Systems
- A regional smart card implemented on a test basis
- Real-time arrival information provided at bus stops
- Ticket vending machines installed at key locations along the corridor
- Continued development of automated trip planning kiosks

9. Research, Planning, and Experience to Date

An application should indicate the prior work that participating parties (e.g., the candidate city or other jurisdictions) have already done to reduce congestion, including research, planning, and actual implementation of congestion related activities in the metropolitan area.

The application has in previous locations listed the region's successful implementation and results of ITS efforts, TDM, and operational efficiencies such as ramp meters and incident response programs. The construction of a 200+ mile HOV system, and funding for another 60 miles, has lead to the development of reliable local and express bus service across the region.

Washington State has studied tolling and pricing for several years. Major efforts have included:

a. "Regional Toll Feasibility Study" (2002) – The purpose of this study was to examine the traffic and revenue impacts of region-wide tolling for both revenue potential and congestion management. The study examined seven major regional highways and found that an appropriate level of tolling would be somewhere between the level that would maximize throughput and the level that would maximize revenues. It also identified several policy and institutional issues that needed additional consideration before tolling could be implemented.

b. "Comprehensive Tolling Study" (2006) – This Washington State Transportation Commission study took the first comprehensive look at how to implement tolling on state highways. The report considered policy and institutional issues identified by the 2002 study and made nine major policy recommendations.

c. PSRC Traffic Choices Study (2006) – The Puget Sound Regional Council asked volunteers to participate in a pay-per-mile study. Volunteers were given accounts with "play money" and meters were installed in about five hundred cars. People were charged based on the time of day and the type of road or highway on which they drove. Detailed analysis of findings is still underway, but early results show that people do in fact change behaviors and driving patterns if they pay to drive.

d. Congestion Relief Analysis – Phase 1 of the analysis evaluated a variety of congestion relief strategies including improve highways, transit services, implementing region-wide congestion pricing and aggressive traffic and travel demand management techniques singly and in combination. The study concluded that to effectively reduce congestion, congestion pricing along with adding capacities at key travel corridors and making more efficient use of the existing facilities must all be part of the solution. Taking cues from Phase 1 work, Phase 2, currently underway, explored how various regional HOT network and value pricing concepts could work in the central Puget Sound area. Preliminary analysis results indicated that region-wide congestion pricing is the single most cost effective congestion reduction strategy. The results revealed that while a HOT lane network could improve travel time reliability for those who need it the most, the successful operation of such a network, to a large extent, would depend on the provision of HOT lane to HOT lane direct connections at major highway interchanges; and that building these direct connections and providing necessary buffer space to separate the HOT lanes and adjacent general purpose lanes could cost many billion dollars.

WSDOT is currently implementing electronic toll collection on the new Tacoma Narrows Bridge and will use the same ETC system for the SR 167 HOT lanes project. The HOT lanes effort is also implementing a new dynamic software program that will allow vehicles to enter and exit at multiple locations.

Our state has positioned itself to advance to the next level of congestion relief: leveraging its success in previous efforts in order to launch a regional pricing program that will also be successful. The proposed Partnership provides a springboard toward this future vision.

10. Other Time-Frame Considerations

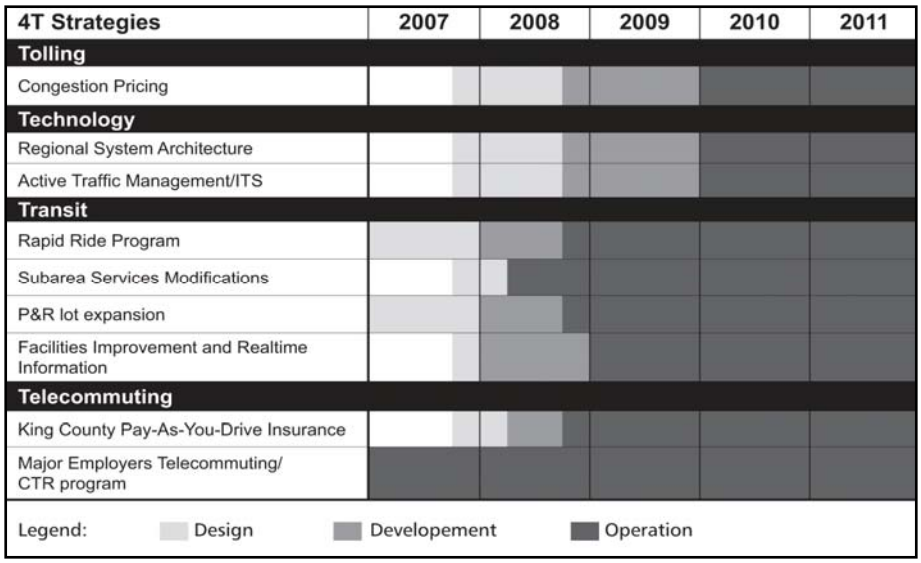
An application should indicate the dates during which applicants expect to conduct congestion reduction activities (e.g., a seven-month trial from June 1, 2008 until December 31, 2008). If the applicant expects the activities to continue indefinitely, the application should indicate this fact. Similarly, if the pricing activity is adopted on a temporary, experimental basis and the applicant expects it to be voted on by citizens of the jurisdictions participating in an Urban Partnership or otherwise considered for continuation, the application should provide this information.

With strong support from USDOT and other federal, state and local agencies, tolling the Lake Washington corridor could begin as early as 2009.

The congestion reduction strategies proposed in this application are scaleable, meaning that they can be implemented in phases over time to ensure they are effective and are accepted by the traveling public. During the initial stage of congestion pricing operation, improving travel times and maintaining roadway throughput will be a priority. Variable toll rates by time-of-day and levels of congestion will be tested. The purpose of these tests is to:

- Demonstrate tolling to the public and build public support for using tolling as an effective congestion reduction strategy;
- Evaluate travelers' reactions to various toll levels in terms of traffic diversions to other routes, other modes and other travel times;
- Set the stage for an expanded system management program to reduce congestion throughout the region.

It is the intention of WSDOT and its partners that the tolls, after proven effective in reducing congestion, will remain in place. Timelines for tolling and other proposed strategies are shown in the table below.



11. Funding Support

An application should indicate the estimated cost to implement the overall congestion reduction strategy. An application should also indicate the anticipated sources of those funds, including the amount requested to be covered by Federal sources.

The total estimated cost to implement the proposed congestion reduction strategies is just over $200 million, including $118 million for congestion pricing, active traffic management and supporting technologies deployment, $47.5 million for increasing and improving transit services, as well as $39 million for telecommuting and TDM activities. The Partnership seeks federal grant funding in the amount of $159.3 million in the first three years to develop and implement the proposed congestion reduction strategies before the program becomes self-sustaining in 2011. The table below shows detail breakdowns of cost and funding estimates from 2007 to 2010.

Proposed Congestion Relief Strategies Implementation Costs and Funding Estimates (in $1,000s)

Work Program			***2007***	***2008***	***2009***	***2010***	***Total***
Cost	Toll/ITS/ATM	Design/Communications	$ 2,100	$ 9,000	$ 3,000	$ 2,600	$ 16,700
		Deployment	$ -	$ 2,400	$ 88,600	$ -	$ 91,000
		Operation	$ -	$ -	$ -	$ 10,500	$ 10,500
		Subtotal	**$ 2,100**	**$ 11,400**	**$ 91,600**	**$ 13,100**	**$ 118,200**
	Transit/P&R	Capital	$ -	$ 6,200	$ 34,900	$ -	$ 41,100
		Operation	$ -	$ -	$ 2,600	$ 3,800	$ 6,400
		Subtotal	**$ -**	**$ 6,200**	**$ 37,500**	**$ 3,800**	**$ 47,500**
	Telecommuting/TDM		**$ 9,800**	**$ 9,800**	**$ 9,800**	**$ 9,800**	**$ 39,200**
	Total Cost		***$ 11,900***	***$ 27,400***	***$ 138,900***	***$ 26,700***	***$ 204,900***
Funding	VPP Grant Funds (requested)		$ 3,000	$ 3,000	$ 3,000	$ -	$ 9,000
	ITS-OTMC Grant Funds (requested)		$ 109,200	$ -	$ -	$ -	$ 109,200
	FTA Funds (requested)		$ 41,100	$ -	$ -	$ -	$ 41,100
	Subtotal Federal Funds (requested)		*$ 153,300*	*$ 3,000*	*$ 3,000*	*$ -*	*$ 159,300*
	Other Souces & Employer Contributions		$ 9,800	$ 9,800	$ 12,400	$ 13,600	$ 45,600
	State Match		*Toll Credits For ITS and VPP*				
	Subtotal Non-Federal Funds		*$ 9,800*	*$ 9,800*	*$ 12,400*	*$ 13,600*	*$ 45,600*
	Total Funding		***$ 163,100***	***$ 12,800***	***$ 15,400***	***$ 13,600***	***$ 204,900***

12. Contact Information

An application should clearly indicate contact information, including name, organization, address, phone number, and e-mail address. The Department will use this information to inform parties of the Department's decision regarding selection of interested parties, as well as to contact parties in the event that the Department needs additional information about an application.

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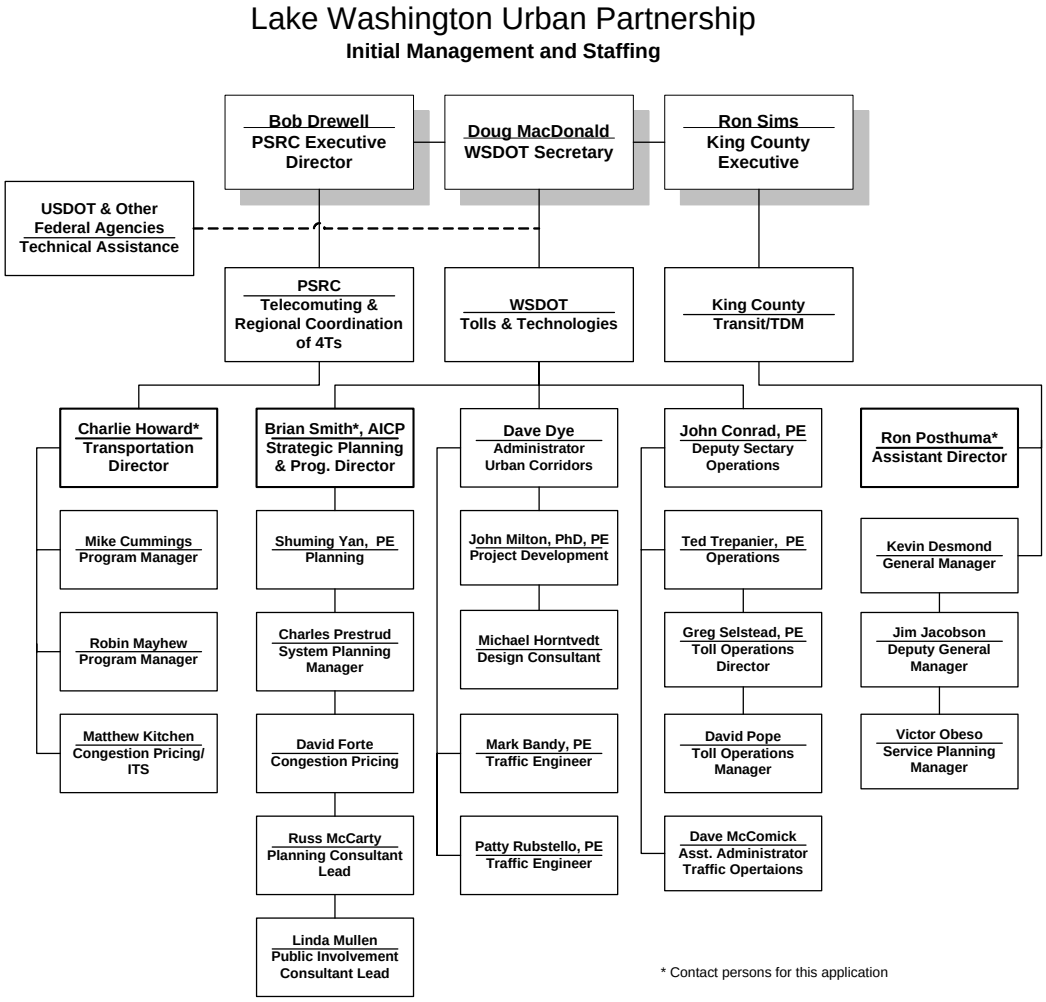
The initial management and staffing chart is shown on the next page.

Appendix A


Lake Washington Urban Partnership
Initial Management and Staffing
Bob Drewell
PSRC Executive Director
Doug MacDonald
WSDOT Secretary
Ron Sims
King County Executive
USDOT & Other Federal Agencies Technical Assistance
PSRC
Telecomuting & Regional Coordination of 4Ts
WSDOT
Tolls & Technologies
King County
Transit/TDM
Charlie Howard*
Transportation Director
Brian Smith*, AICP
Strategic Planning & Prog. Director
Dave Dye
Administrator Urban Corridors
John Conrad, PE
Deputy Sectary Operations
Ron Posthuma*
Assistant Director
Mike Cummings
Program Manager
Shuming Yan, PE
Planning
John Milton, PhD, PE
Project Development
Ted Trepanier, PE
Operations
Kevin Desmond
General Manager
Robin Mayhew
Program Manager
Charles Prestrud
System Planning Manager
Michael Horntvedt
Design Consultant
Greg Selstead, PE
Toll Operations Director
Jim Jacobson
Deputy General Manager
Matthew Kitchen
Congestion Pricing/ ITS
David Forte
Congestion Pricing
Mark Bandy, PE
Traffic Engineer
David Pope
Toll Operations Manager
Victor Obeso
Service Planning Manager
Russ McCarty
Planning Consultant Lead
Patty Rubstello, PE
Traffic Engineer
Dave McComick
Asst. Administrator Traffic Opertaions
Linda Mullen
Public Involvement Consultant Lead
* Contact persons for this application